

**REMARKS**

Reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

This amendment is in response to the Office action dated October 28, 2003, in the above referenced application. Presently, claims 2-6 stand rejected. Original claim 1 was earlier canceled. Previously presented claims 2-4 are now amended to add an appropriate article to the word "apparatus" in the preamble of each of these claims. Previously presented claims 5 and 6 remain unchanged, and new claims 7-10 are presented. Support for the subject matter of new claims is present in the application, and no new matter has been added.

In the Office action, claims 2 and 3 were rejected under 35 USC 103 as obvious over Kitamura et al. (US 5,614,735) in view of Sano et al. (US 6,097,084). The Examiner asserted that Kitamura et al. teaches an extended length light emitting diode. The Examiner then points out, with respect to FIG. 5, that Kitamura shows an LED die (1) having electrical connection leads (12) connected thereto and extending therefrom; a molded body (11) of electrical insulating material encompassing the LED die and a portion of each of the LED die from the environment and insulating and supporting each of the electrical connection leads, said molded body having a length and a cylindrical shape terminating in an upper domed portion (emphasis added) through which light, emitted from the LED die, emanates for viewing (emphasis added); a molded extended length body region (11a) formed of electrical insulating material and being integral to and formed in one unitary mass with the molded body and making longer the length of the molded body, the molded extended length body region encompassing an additional portion of each of the electrical connection leads and thereby further insulating and supporting each of the electrical connection leads, the molded extended length body region having a cylindrical shape matching

the cylindrical shape of the molded body and a base which is planar in its entirety. The Examiner then recognizes and acknowledges that Kitamura et al. fails to teach the extended length of the light emitting diode insert into a printed circuit board.

In column 1, lines 63, 65 and 67, as well as column 2, lines 2, 3, 12, 14 and 16, the device of **FIG. 5** is described as a "laser." Besides overlooking the description of **FIG. 5** as a "laser", the Examiner has jumped over the title of Kitamura et al. reference "Semiconductor Laser Device", the field of the invention "laser" (see column 1, lines 7 and 9) and the introductory description of where one might expect to use the teachings of Kitamura et al. "in optical disc devices" (see column 1, line 12) and "laser beam printers" (see column 1, line 14). Optical disc devices and laser printers are both examples of CLASS 1 LASER devices which are designed as NOT emitting radiation under normal operating conditions because they are completely enclosed. Such devices have an engineered interlock to avoid the hazardous possibility of viewing the enclosed laser during repair or other disassembly. The next step up in laser definition is Class 2 lasers that do emit low levels of radiant power and are capable of causing eye damage. Thus, it is incorrect to characterize the teaching of Kitamura et al. as emitting light for viewing. Moreover, Kitamura et al. does not appear to show an upper domed portion as asserted by the Examiner. One of ordinary skill would not be lead to employ laser technology for display sign technology designed to be viewed by an observer. Rather, one of ordinary skill would be lead away from laser technology because it is intended to NOT be viewed. Moreover, the teaching of **FIG. 5** does not suggest a domed portion.

The secondary reference, Sano et al. is asserted to teach in **FIG. 5b** that the extended light emitting diode is inserted

into the printed circuit board (4) with the entirely planar base bearing directly against and lying flush with the upper surface of the printed circuit board without the need for an interceding spacer. Again, Sano et al. is not a teaching designed for viewing, but rather is a teaching of a device designed for counting interruptions of a beam passing across a gap 3b of **FIG. 5(b)**. Further, the beam being emitted is not directed away from the printed circuit board 4 but rather is directed parallel to the printed circuit board 4. Moreover, the teaching of **FIG. 5(b)** is a prior art teaching and assuming, only for the sake of argument, that one of ordinary skill were to consider Sano et al. they would be lead not to **FIG. 5(b)** but to Sano et al.'s newer teachings.

Because neither the Kitamura et al. reference nor the Sano et al. reference are directed toward observer viewable devices but rather are directed toward internal non-viewable devices, one of ordinary skill would not be lead to combine them to arrive at the inventions of claims 2 and 3. Based strictly upon the hazardous emission of the primary reference, it should be clear that these two cited references do NOT lead to the conclusion that it would have been obvious to one of ordinary skill in the art at the time to arrive at the present invention as recited in claims 2 and 3. Reconsideration and allowance of amended claims 2 and 3 are respectfully requested.

In the Office action, claims 4-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nitori (JP 5-90643) in view of Sano et al. (US 6,097,084). A careful reading and fair review of Nitori reveals a rather limited disclosure and teaching. The brief translation of Nitori's abstract teaches only a small amount concerning Nitori's "light emitting device." There does not appear to be a teaching that light is emitted through an upper domed portion. It is even unclear that the curved upper portion adjacent reference numeral 8 is domed

rather than a half-cylinder. Also, it is not taught in the translation that either the upper portion (reference numeral 8) or the lower portion (reference numeral 9) of the Nitori device is cylindrical. Circumference is mentioned only with respect to a small internal light emitting element (reference numeral 1). The upper molded epoxy resin #8 portion of the device could just as well have the shape of an oval or even the shape of a loaf of bread as the domed cylinder shape assumed in hindsight by the Examiner. Similarly, the lower portion (reference numeral 9) could be an oval or a cube instead of the cylindrical shape assumed by the Examiner in hindsight. There is no teaching to use light emitted from the Nitori light emitting device for viewing purposes. Finally, as recognized by the Examiner, there is no teaching concerning auto-insertion or any printed circuit board relationship nor any teaching of elimination of an interceding spacer.

According to the Examiner's interpretation, Sano et al. teach in FIG. 5(b) that the extended light emitting diode is inserted into the printed circuit board (4) with the entirely planar base bearing directly against and lying flush with the upper surface of the printed circuit board without the need for an interceding spacer. With respect to the secondary reference, Sano et al., Applicant's attorney again points out that Sano et al. does not emit light from an apparatus but rather transmits light across a gap in an apparatus for counting interruptions. One of ordinary skill would not be lead by the combination of Nitori and Sano et al. to the present invention. Reconsideration and allowance are respectfully requested. Based upon the hindsight interpretation of Nitori and the nonviewable intended use of Sano et al., the Examiner wrongly concludes it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the light emitting diode into the printed circuit board in order to provide an

operation signal to the light emitting diode. These references do not lead to such a conclusion. Reconsideration and allowance is respectfully requested.

With respect to claim 5, the Examiner asserts that Nitori teaches the base of the molded body and the upper surface of the molded body extension are both planar. It is respectfully submitted that the Examiner has employed hindsight rather than show an actual teaching. Reconsideration and allowance are respectfully requested.

With respect to claim 6, the Examiner asserts Nitori teaches the upper surface of the molded body extension is permanently affixed to the base of the molded body by adhesive. The teaching relied upon by the Examiner does not appear to be present in the Nitori translation as the term "adhesive" is not mentioned in the translation provided. Reconsideration and allowance are respectfully requested.

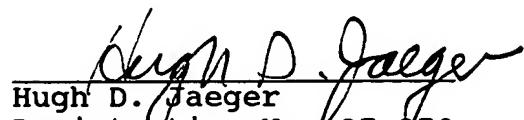
It is respectfully submitted that the claims are now in condition for allowance and a notice of allowance is requested. If there are any further issues yet to be resolved to advance the prosecution of this patent application to issue, the Examiner is requested to telephone the undersigned counsel.

If there are any further issues yet to be resolved to advance the prosecution of this patent application to issue, the Examiner is requested to telephone the undersigned counsel.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,

HUGH D. JAEGER, P.A.

  
Hugh D. Jaeger  
Registration No. 27,270  
1000 Superior Blvd., Suite 302  
Wayzata, MN 55391-1873  
Telephone: 952-475-1880  
Facsimile: 952-475-2930

02/24/2004

MYFILES\PLEAD\PL4435